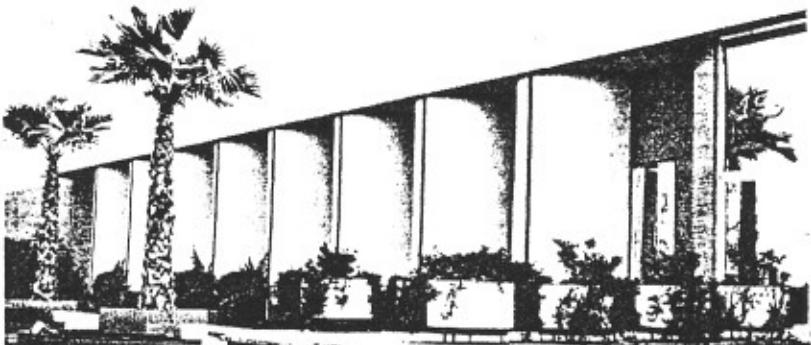


ELECTRONIC SPECIALTY

PORTLAND DIVISION NEWS



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Portland, Oregon

Rozell Presents Gains and Goals To Portland Division Employees



W. M. Rozell, vice president and general manager, is shown here as he addressed the Managers' Club recently. Left to right

are Dan Bauer, Stan Lindstrom, Terry Lowry, Rozell, Harry Estes and Harold Pietz.

Of the many situations of anxiety we face in our world today--including our economical, social and international problems--we must also recognize that we are living in, and are a part of, the most dynamic and promising period of time in the history of man.

Imagine, for purposes of comparative analysis, that the entire history of man could be compressed to fit into the last 50 years, the events in time would run something like this . . .

"It would take the first 40 of that 50 years to get us out of the caves. It would take another 5 years before we could learn to write with pictures. . . .two more years would pass before Christ was born. . . .nine months ago the printing press would have been invented, and 4 minutes ago the first commercial jetliner took to the air."

In the last 2½ decades we have made fantastic gains in every element and subject you care to think about. This certainly is true in all technical fields--from aerodynamics to zoology--but particularly in the "materials technology" field, which is what we at E.S. are a part of. Whether you are talking about medicine, aerodynamics or transportation, those industries

must have the support of the materials technology industry to insure progress.

Today, across the entire material spectrum, from aluminum to zirconium, metals are being put to use against environmental demands not even dreamed of 10 years ago.

Just recently on T.V. you may have watched the launching of the latest Apollo spacecraft. The power of the Saturn Booster, is powerful enough to lift into orbit, one million full size automobiles. The power harnessed in our space rocket units today is truly awesome. The combustion chamber for that Booster was composed of precisely formulated alloys and metals capable of resisting ultra-high stresses and extreme temperatures. The special pressure vessels of nickel steel were developed to carry cryogenic liquids with temperatures of minus 400 degrees.

Less than 25 years ago commercial alloys were limited to just a few hundred of "chance" choices. Today, the materials industry has an inventory of literally thousands of precisely formulated materials for almost any application man's mind

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can conceive. From three miles down in the ocean, to thousands of miles out in space.

For example, we have foamed metals, amazingly strong but light enough to float on water...powdered metal composites that can be forged, stamped or bent...and a recent powdered metal development by Crucible Steel that contains the ultra high tough properties of tool steel. There are also materials made from what we call "whiskers" or "fibers". These are pure crystalline particles that lend incredible strength to the alloy that they are introduced to. Iron alloys in this form can provide tensile strengths to nearly 2 million pounds per square inch (the present limit for most steels is around 350,000 lbs.).

Although at the moment many of these are still in the laboratory stage, let me remind you that --- 7 years ago you could line up 25 people and say Teflon, 24 of them would ask "what is that?" Many of these fabulous materials are in research improvement right now; but in the next year or two they can be common place.

Some of the most impressive news in metallurgy is being made with the ultra-high strength miraging steels. Normally, brittleness is a companion to increased hardness; but with todays production techniques, yield can also be increased proportionately. Right now in our own plant we are heat treating steels up to 300,000 PSI that produces strength to weight ratios that exceeds most aluminum alloys.

Now this is not to say we should ignore aluminum. Aluminum is an established airframe material. It has found its home in this industry and is going to stay as long as airframes are built.

For example, both Reynolds Metals and Alcoa have, on hand right now, an alloy developed solely for use in an all aluminum automobile engine. This can mean a savings of over 136 pounds per car within the next two years. The delay in applying this alloy to mass production lays with the problems of die casting. The technique and development of die casting has not kept up with the ability of the metallurgists to develop new alloys. (Much like the exuberant chemist who had finally developed a 100% effective acid, but couldn't find anything to keep it in.)

We have made some significant advancements in the field of non-ferrous alloys - at least one such achievement has been from within our own corporation. The Pomona Division of Electronic Specialty Co. has developed and patented the "KO1 Alloy" which can provide tensile strengths in castings of up to 65,000 PSI. In preliminary tests, Pomona Division cast a landing gear cylinder for the Northrop T38 Trainer and proof-tested it...the proof-test fixture failed before the casting did!

Since we are one of this industries largest metal working facilities, we witness continuous changes in component requirements of todays airframe business. We see changes all the time. To maintain and improve our status, there are a number of people in your management who are working diligently to stay abreast of technology in the field of metals.

It is with this technology, plus our expanded facilities... and most important our team spirit, that should enable Portland Division to play a greater roll than ever in the future of our nations airframe industry!

E. S. Corporate Offices Announce New Operations Nomenclature

A realignment of operating divisions of Electronic Specialty Co. was announced March 5th by Elmer A. Sticco, executive vice president.

Electronic Specialty (55 per cent owned by International Controls Corp., Fairfield, New Jersey) now operates with 10 divisions serving the air transportation, computer, marine and public utilities industries with structures, components, electronics, and electromechanical products.

"The realignment," Mr. Sticco stated, "is a result of more closely relating the operational functions of our divisions to the markets they serve. This nomenclature is geared to gain maximum advantage of the integrated manufacturing capabilities, product lines, and marketing functions which exist in our divisions."

"NEW GROUP NAMED"

A new group --- Electro-Mechanical --- has been created by combining the Connecticut and Portland Electronics Divisions and Eemco Division, with the Smith Engineering and Nicholson Divisions. Leonard J. Corti, vice president of what was formerly the Electronics Group, heads the new Electro-Mechanical Group.

The Connecticut Electronics Division, located in Thomaston, designs

and produces a wide range of flexible and rigid waveguide and waveguide components, ringing equipment and other products for the communications industry; and precise power systems and motors for the marine and communications industries. Michael J. Rossi, Jr. is general manager.

The Portland Electronics Division operates in the Pacific Northwest. The division designs and manufactures gyroscopes and gyro systems, relays and welded modules for aircraft, missiles and communications applications with William S. Nakamura as general manager.

The Eemco Division, Los Angeles, California is a leading manufacturer of electromechanical actuators and starter generators for the aircraft industry. James H. Anderson is general manager.

The Smith Engineering Division, located in Inglewood, California, produces computer, and guidance control systems' components and assemblies of titanium, sheet plate steel and aluminum. Robert L. Smith is general manager.

The Nicholson Division of Wilkes-Barre, Pennsylvania, produces a wide range of steam, air and gas traps, and filters and floats for the heating and air conditioning, chemical and petro-

um processing industries. Donn Innes is general manager.

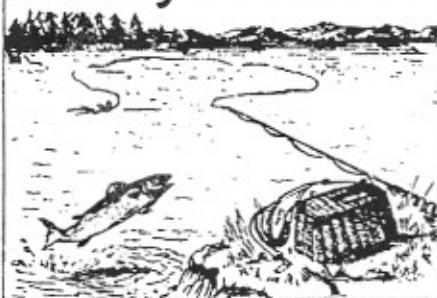
MATERIALS TECHNOLOGY GROUP

The main thrust of Electronic Specialty's growth over the last half decade has been in the area of materials technology. Mr. Sticco is acting group vice president. ELS' integrated approach in its Materials Technology Group begins with a cast product, presently aluminum and magnesium...ultimately with titanium.

The Pomona Division, a 180,000 square foot foundry, produces precision aluminum and magnesium castings for aircraft and missile components, architectural fascia, wall tiles and spandrels, furniture frames and helicopter transmission cases.

The division's new "KO-1" super aluminum alloy, the first major development in aluminum alloys in 35 years, has unusual characteristics for meeting requirements for strength and elevated temperatures of aircraft engine parts, as well as turbine parts. ELS also has licensed the Aluminum Division of the Olin Mathieson Chemical Corporation to produce the new alloy. Edgar C. Hummel is president of the division and Eugene Bausman is general manager.

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The Angler's Corner

by GEORGE MacALEVY

Steelhead are as unpredictable as a Black Bass as regards their behavior and feeding patterns. Often, during a cold snap, the old timers along the river say the fish won't hit because of the low water temperature. During the two day cold snap when temperatures dropped below ten degrees, the river here iced up out to 30 feet from both sides leaving an open channel in the center to carry the bulk of the cold-reduced flow.

At the Pearson hole, a school of Steelhead was jumping and rolling in the open water the length and breadth of the slower water portion of the hole. Repeated efforts by anglers failed to entice even one of these fish to hit.

Up the river at the swimming hole, the Steelhead were lying quietly under the edge of the ice at the same time. Here a correctly placed Okie, drifted at the edge of the open water would garner a strike. Of course, landing them was impossible, as they immediately went under the ice and eventually sawed the line off on the ice. This happened to two of them for me. So one question is posed and unanswered. Why did the fish hit as usual in one spot, and 500 yards away, in the same icy cold water, refuse to hit anything?

There are those days that one thing and one thing only will take a Steelhead. I remember a day on Eagle Creek with about twenty five anglers involved between the bridge and the falls. Eleven fish were hooked that day in that stretch, and every one on plain red yarn sparsely tied on the hook. The boys who stuck with their eggs, Okies, or wobblers could get nary a strike.

Of an exact opposite nature are the experiences of a three day run of fish that just passed up the Sandy. Any Steelhead lure would work on these fish. All that was required was to read the water well enough to place your lure or bait and you'd get the strikes.

When you fish a particular area over the years, and really study the stream even in summer, you get a real good picture of the bottom, the contours of the pool, and the pockets of slack

SPORTS SCORES!

SPORTS

by Bob Regan

BOWLING BITS: The first half of the '68-'69 bowling season was completed on January 9, 1969, and the day shift winners were the Pin Splitters with 39 win points, closely followed by the Pin Dusters and Electricians who tied for second place with 37 win points. There was only a 5 point spread between the first seven teams and only 11 points between first and last place. The first half champs are:

Bill Tumbelaka
John Deranleau
John Monson
Lonnie Warthen
Bill Wing

The swing shifters also finished the first half and the "Drunkards" came up with first place with 43 win points. The Able Idiots and Lucky 13 teams finished second and third. The top team members are:

Mark McIntyre
Hillard Crandell
Wayne Repp

Dean Withey waited until the last night to roll a big 234 game which placed him in second place scratch game and first place with handicap. The 234 game was 107 pins over Dean's average. A fine game in most any league - - - - - congratulations. Both leagues will bowl now for a second half winner and at the end of

where the fish would lay. This foreknowledge of the water conditions down under results in connecting you to a fish on your first few casts, when there are fish moving in the river.

But every so often, for a day or so, every fish you connect with has been laying in some place not normally used by these fish, "Steelhead never lay over sand" is one thing you hear often, and in most places and on most days this is true. Then comes a day, when every fish located is over a sand bottom, and the normal gravelled and stoney lies are completely unproductive.

Another platitude, "The persistent jumpers and long runners are Bucks, the fish that never jumps and fights deep and convulsively will always prove to be a hen," is also usually true. The day comes along when if one fish acts contrary to this rule, so do all the others. The hens jump and run all over the place, and the Bucks sound and do a Chinook type tug of war until beaten. This type of behavior reversal doesn't happen too often and usually never lasts over more than one day, but it happens and you'll have to tell me why, if you know.

the season the first and second half winners will play for their respective league championship.

Bob Buckles, second shift, bowling in the 41st annual city championship tournament at Amato Lanes in late February had quite a week for himself. On February 16, 1969, Bob shot his first 600 series, a 235-201-201-637, as he and Charles Calton took first place in the Booster Doubles with a 1233 score. Bob also took second place in the Booster All-Events with a 1775 total. This isn't all of the story as earlier in the week Buckles hit with a 561 series to help "The Pick-Ups", a team made up of some of his fellow workers at E.S., into second place in the Booster Team Events.

* * *

BASKETBALL: The E.S. Cagers bounced back after a shaky start and finished up strong with four straight wins. Their overall record of 5 won, 4 lost gave them second place in the Industrial "B" League first half. They continued their winning ways into the second half and now have a 6 win, 1 loss record which is good enough for first place standing. The championship game is Wednesday, March 12, 1969, for the Industrial "B" League and their present standing also qualifies them for the city playoffs that are coming up.

E.S. has two teams in action this second half as the following men are playing the Industrial "F" League.

Mike Caccamo
Cec Dugger
Bob Gedde
Bernie Koppert
Stan McCambridge
Dave Sasseen
Jerry Stone
Jim Summerlin

Their efforts netted them second place in the league with a 4-2 record.

* * *

GOLF: Dig out the golf bag, clean up the club faces, straighten out the shafts, polish the mildewed golf shoes, and practice that smooth swing for the 1969 golf season is underway. The first round was at Arrowhead on February 9, 1969, and a few hardy souls showed up. The second round was at Rose City on February 25, 1969, with a fine turn out on a windy, cold day.

The third round was played at Oregon City on Sunday, March 9, 1969, a clear, sunny but chilly day. We will let the men have another practice round or two before we start posting scores.